

Notice of Allowability

Application No.

10/725,859

Examiner

VAN H. NGUYEN

Applicant(s)

BORGHESANI ET AL.

Art Unit

2194

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 02/20/2008 and the telephonic interview on 05/09/2008.
2. ☒ The allowed claim(s) is/are 1-3, 5-7, 9-12, 15-19, 21-29, 31-33, and 35 (now renumbered as 1-28).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. This communication is responsive to the amendment filed 02/20/2008 and the telephonic interview on 05/09/2008.

Claims 1-3, 5-7, 9-12, 15-19, 21-29, 31-33, and 35 have been examined and allowed.

2. **EXAMINER'S AMENDMENT:**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John S. Curran (Registration No. 50, 445) on 05/09/2008.

The application has been amended as follows:
In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A computer-implemented method of accessing a library function in a shared library from a dynamic environment, comprising:

processing a header file of the library function to automatically specify parameter information for creating an interface to access the library function, the processing automatically ensuring inputs to the interface to the library function are selected data types based on the header file;

creating the interface to the library function in the shared library using the parameter information, the interface automatically converting a data type in an input to the interface to a selected data type for the library function; and

saving the interface to the library function in an executable form for subsequent use.

2. (Presently Presented) The method of claim 1, wherein processing the header file further comprises automatically defining parameters for the interface to the library function based on the header file.

3. (Presently Presented) The method of claim 2, wherein automatically defining parameters for the interface to the library function based on the header file further comprises creating at least one data structure having selected parameters for interfacing with the library function.

4. (Canceled).
5. (Currently Amended) The method of claim [[4]] 1, wherein automatically ensuring inputs to the interface to the library function are selected data types based on the header file further comprises converting data types to the selected data types for the library function with the interface.
6. (Previously Presented) The method of claim 1, wherein the shared library comprises one of a Dynamic Link Library (DLL) file and a file with a shared object (.so) file extension.
7. (Original) The method of claim 1, wherein the header file comprises a C header file.
8. (Canceled)
9. (Original) The method of claim 1, further comprising receiving a command to call the library function.
10. (Original) The method of claim 1, further comprising executing the library function using the interface from the shared library.

11. (Original) The method of claim 1, wherein the dynamic environment comprises at least one of a text-based modeling application and a graphical-based modeling application.

12. (Currently Amended) A computer-implemented method of accessing a library function in a shared library from a dynamic environment, comprising:

loading the library function from the shared library;

processing a header file of the library function and extracting information for creating an interface to the library function, the processing automatically defining parameters for the interface to the library function based on the header file;

generating an interface to access the library function as a result of the processing, the interface automatically converting a data type in an input to the interface to a selected data type for the library function;

saving the interface to the library function in an executable form for subsequent use; and

executing the library function using the interface from the shared library.

13. (Canceled).

14. (Canceled).

15. (Currently Amended) The method of claim [[14]] 12, wherein automatically defining parameters for the interface to the library function based on the header file further comprises the electronic device creating at least one data structure having selected parameters for interfacing with the library function.

16. (Currently Amended) The method of claim [[13]] 12, wherein processing the header file further comprises automatically ensuring inputs to the library function are in the form of selected data types based on the header file.

17. (Presently Presented) The method of claim 16, wherein automatically ensuring inputs to the library function are in the form of a selected data type based on the header file further comprises the interface converting data types to the selected data types for the library function.

18. (Previously Presented) The method of claim 12, wherein the shared library comprises one of a Dynamic Link Library (DLL) file and a file with a shared object (.so) file extension.

19. (Original) The method of claim 12, wherein the header file comprises a C header file.

20. (Canceled)

21. (Original) The method of claim 12, wherein the dynamic environment comprises at least one of a text-based modeling application and a graphical-based modeling application.

22. (Currently Amended) A computer-implemented system for calling a shared library from a dynamic environment, the system comprising:

a storage; and

a processor configured to:

execute an application providing a dynamic environment,

execute a shared library accessible by the dynamic environment,

execute an automated processing function for processing a header file of a library function in the shared library to automatically specify parameter information for creating an interface to the library function, the processing automatically ensuring inputs to the interface to the library function are selected data types based on the header file; and

save the interface to the library function in an executable form for subsequent use.

23. (Previously Presented) The system of claim 22, wherein the shared library comprises one of a Dynamic Link Library (DLL) file and a file with a shared object (.so) file extension.

24. (Previously Presented) The system of claim 22, wherein the header file comprises a C header file.

25. (Previously Presented) The system of claim 22, further comprising the interface to the library function being saved in the shared library of the dynamic environment in an executable form.

26. (Previously Presented) The system of claim 22, wherein the dynamic environment comprises at least one of a text-based modeling application and a graphical-based modeling application.

27. (Currently Amended) A medium for use in a modeling and execution environment on an electronic device, the medium holding instructions executable using the electronic device for performing a computer-implemented method of accessing a library function in a shared library from a dynamic environment, the method comprising:

processing a header file of the library function to automatically specify parameter information for creating an interface to the library function, the processing automatically ensuring inputs to the interface to the library function are selected data types based on the header file;

creating the interface to access the library function in the shared library using the parameter information, the interface automatically converting a data type in an input to the interface to a selected data type for the library function; and

saving the interface to the library function in an executable form for subsequent use.

28. (Presently Presented) The medium of claim 27, wherein processing the header file further comprises automatically defining parameters for the interface to the library function based on the header file.

29. (Presently Presented) The medium of claim 28, wherein automatically defining parameters for the interface to the library function based on the header file further comprises creating at least one data structure having selected parameters for interfacing with the library function.

30. (Canceled).

31. (Currently Amended) The medium of claim [[30]] 27, wherein automatically ensuring inputs to the interface to the library function are in the form of selected data types based on the header file further comprises the interface converting data types to the selected data types for the library function.

32. (Previously Presented) The medium of claim 27, wherein the shared library comprises one of a Dynamic Link Library (DLL) file and a file with a shared object (.so) file extension.

33. (Original) The medium of claim 27, wherein the header file comprises a C header file.

34. (Canceled)

35. (Original) The medium of claim 27, wherein the dynamic environment comprises at least one of a text-based modeling application and a graphical-based modeling application.

3. **REASONS FOR ALLOWANCE:**

Claims 1-3, 5-7, 9-12, 15-19, 21-29, 31-33, and 35 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not expressly teach or render obvious the invention as recited in independent claims 1, 12, 22, and 27.

The features:

- *“the processing automatically ensuring inputs to the interface to the library function are selected data types based on the header file; and the interface*

automatically converting a data type in an input to the interface to a selected data type for the library function” [independent claims 1 and 27];

- *“the processing automatically defining parameters for the interface to the library function based on the header file; and the interface automatically converting a data type in an input to the interface to a selected data type for the library function” [independent claim 12]; and*
- *“automatically specify parameter information for creating an interface to the library function, the processing automatically ensuring inputs to the interface to the library function are selected data types based on the header file”*
[independent claim 22]

when taken in the context of the claims as a whole, were not uncovered in the prior art teachings.

Dependent claims are allowed as they depend upon allowable independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MENG-AI AN can be reached at (571) 272-3756.

The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/

Primary Examiner, Art Unit 2194

